

Final Abstract Number: 57.025

Session: Zoonoses &amp; Infections in Animals

Date: Saturday, June 16, 2012

Time: 12:45-14:15

Room: Poster &amp; Exhibition Area

**Pulmonary manifestations of leptospirosis**E. Puca<sup>1</sup>, P. Pipero<sup>1</sup>, A. Pilaca<sup>1,\*</sup>, A. Harxhi<sup>1</sup>, T. Kalo<sup>1</sup>, S. Kurti<sup>1</sup>, D. Kraja<sup>2</sup>, A. Beqiri<sup>3</sup>, E.Y. Puca<sup>4</sup><sup>1</sup> University Hospital Center "Mother Teresa", Tirana, Albania<sup>2</sup> Faculty of Medicine, Tirane, Albania<sup>3</sup> U.H.C "Mother Teresa", Tirana, Albania, Albania<sup>4</sup> American Hospital<sup>2</sup>, Tirana, Albania

**Background:** Leptospirosis is a zoonosis, caused by *Leptospira* species. Human infection by pathogenic *Leptospira* may present variable clinical manifestations ranging from subclinical infection with undifferentiated febrile illness to jaundice, renal failure, and potentially lethal pulmonary disease.

**Methods:** From 48 cases serologically confirmed with positive IgM ELISA for leptospirosis during January 2002–December 2010 in our hospital, we included 43.7% (21 patients) presented with respiratory symptoms.

**Results:** All patients were males. Mean age at the time of diagnoses were 43.8 years old with 14.8±DS. The time from the first symptoms until they presented to hospital was 6.3 days. Signs and symptoms were: myalgia in 85.7%, temperature with average 38.3°C in 71.4% of cases, conjunctival suffusion in 66.6%, jaundice in 52.3%, cough in 47.6%, haematuria in 38%, headache in 33.3%, abdominal pain in 33.3%, breathlessness in 33.3%, oliguria in 28.5%, chills in 28.5, chest pain in 23.8%, vomiting in 19%, cough with hemoptysis in 19%, and diarrhea in 9.5% of cases. Acute respiratory distress syndrome was presented in 19.0% of cases. In 71.4% were confirmed pathological manifestation by chest X-ray including: bilateral bronchoalveolar infiltrations in 52.4% and massive pneumonia in 19.0% of cases. Mortality was 14.2%.

**Conclusion:** Pulmonary manifestations during leptospirosis were present in 43.7% of cases, so leptospirosis should be considered in the differential diagnosis of patients with febrile illnesses associated with pneumonitis and respiratory symptoms, especially in the presence of hemoptysis. We can't explain why all patients with pulmonary manifestation were males.

<http://dx.doi.org/10.1016/j.ijid.2012.05.660>

Final Abstract Number: 57.026

Session: Zoonoses &amp; Infections in Animals

Date: Saturday, June 16, 2012

Time: 12:45-14:15

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**Comparison of antibody titres in unvaccinated and previously vaccinated adult stray/free roaming canines following anti-rabies immunization by Rapid Fluorescent Focus Inhibition Test (RFFIT) - A preliminary report**R. Pimbura<sup>1,\*</sup>, M. Gunatilake<sup>2</sup>, O. Wimalaratne<sup>3</sup>, A. Balasuriya<sup>4</sup>, D. Perera<sup>5</sup><sup>1</sup> Public Health Veterinary services, Ministry of Health, Colombo, SL, Sri Lanka<sup>2</sup> University of Colombo, Colombo, SL, Sri Lanka<sup>3</sup> Medical Research Institute, Colombo, -, Sri Lanka<sup>4</sup> General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka<sup>5</sup> Medical Research Institute, CO 10 mbo 08, Sri Lanka

**Background:** In Sri Lanka controlling canine rabies is a major challenge due to the presence of stray/free roaming dogs when compared with owned dog population. Stray/free roaming dogs are vaccinated against rabies from a distance using a special injecting equipment called the "Auto plunger". In this context it is important to find out the development of antibody titres in stray/free roaming dogs which is an indirect measurement of efficiency of method of vaccination.

**Objectives:** This part of the study of an ongoing research project was carried out in order to ascertain the antibody titres against rabies in stray/free roaming adult canines without a previous vaccination history (Group 1, n = 47) and in previously vaccinated adult stray/free roaming canines (Group2, n = 47).

**Methods:** On the day of vaccination (D0), 3–5 ml of venous blood was aseptically collected. Anti-rabies vaccine was injected intramuscularly and subsequently animals were released to their territory. A method was used to keep track of these animals. Post vaccination blood samples were collected on days 30, 180 and 360 (D30, D180, and D360) from the recruited dogs and antibody titres were determined at the Medical Research Institute using the Rapid Fluorescent Focus Inhibition Test (RFFIT).

**Results:** Number of canines having antibody titres less than the protective level (0.5 IU/ml) with the percentage and mean antibody titres of Groups 1 and 2

Day	Group 1 (without previous vaccination history)			Group 2 (with previous vaccination history)		
	No	%	mean	No	%	mean
0	44	93.6	0.028	14	29.79	6.663
30	6	12.76	12.560	0	0	51.853
180	6	12.76	8.963	0	0	22.898
360	19	40.42	3.810	8	17.02	7.177

**Conclusion:** A single dose of anti-rabies immunization is not sufficient for the maintenance of antibody titres for a period of one year in 42.04% of canines in group1. More than one immunization would help to maintain antibody titers above protective level in majority of canines (82.97%) in group 2.

<http://dx.doi.org/10.1016/j.ijid.2012.05.661>